

STATE OF NEW HAMPSHIRE
DIVISION OF FORESTS AND LANDS
FOREST PROTECTION BUREAU

EQUIPMENT SPECIFICATIONS

The following is a list of equipment specifications and vendors for forest fire suppression and safety equipment that is NOT available through the Division's TOWN TOOL PROGRAM. The Division does not endorse any listed product or vendor. The omission of any product or vendor from this list is coincidental.

HARD HATS

Hard Hats should meet ANSI Class A & B, as well as NFPA 1977, be made of high-density polyethylene or tough thermoplastic, and be nonconductive. Chinstraps are recommended but may have to be purchased separately. Be sure that hat or band has attachment hooks or holes for the chinstrap, and should have clips on hat for a headlamp.

The Bullard Wildfire Model FH911CR.

GOGGLES

Goggles must comply with both OSHA and ANSI standards. Two types are common:

1. Soft vinyl, perforated or with vent ports, goggles with polycarbonate lens for high impact resistance.
2. Molded neoprene rubber frames with vent ports and clear or colored lenses.

Surplus military dust and wind goggles are common examples, and readily available.

HEAD LANTERNS

Two types are proven and acceptable for wildfire use:

1. Electric head lamp with separate battery case of high density polyethylene and a belt clip, 4 foot connecting cord, 2 ½ inch diameter adjustable lamp head, 1 inch wide adjustable headband, uses 4 standard D-Cell batteries.
2. Cordless headlamp with a high-impact case, adjustable elastic headband, 250 candlepower output, lamp head adjusts 90 degrees, uses 4 standard AA-size batteries.

CANTEENS

Made of polyethylene and available, in 1-2, and 4- quart sizes. The 1-quart model should be purchased with a carrying case or a belt clip.

Surplus military 1- and 2-quart models are ideal, or may be purchased commercially from companies like Nalgene or American Camper.

HIGH PRESSURE PORTABLE PUMPS (Contact your local Forest Ranger for more information)

Wildfire- Pacific Mark 3

4-stage centrifugal pump with a 9 hp. Rotax engine develops up to 275 psi @ 13 gpm.

Weight 57lbs.

Wildfire-Pacific Mark 26

2-stage centrifugal pump with a 5 hp. Rotax engine develops up to 170 psi @ 5 gpm.

Weight 38lbs.

Wildfire-Pacific BB-4

4-stage centrifugal pump with an 18 hp. Briggs & Stratton IC engine develops up to 400 psi @ 15 gpm. Weight 165lbs. Available with an electric start, control panel and in a diesel model.

Wildfire-Pacific Mini-Mark

Single stage centrifugal pump with a 1.8 hp. Kawasaki engine develops up to 73 psi @ 10gpm. Weight 16lbs.

Gorman-Rupp Backpack Pump

Single stage centrifugal pump with 8 hp. Chrysler Marine engine develops up to 200 psi @ 10 gpm. Weight 30lbs.

Waterous or Hale Floto-Pump

High and low pressure models available. For Wildfire use, order the high-pressure model (170psi). Develops up to 171 psi @ 10 gpm. Weight 50lbs.

Wildfire pacific or Cascade Fire Equipment BE-S Pump

Rotary positive displacement pump with 5 hp. Briggs & Stratton engine. Develops up to 200 psi @ 8 gpm. Weight 49lbs. (A smaller 3-hp model is available, weighs 30 lbs, and delivers 150 psi @ 9 gpm).

PORTABLE PUMP ACCESSORIES

Suction Hose

Available in 1 ½” and 2” depending on type of pump. Hard rubber is common, new style transparent flexible plastic also suitable.

Strainers

Available in 1 ½” and 2” sizes from most pump supply companies. Shall incorporate a foot valve for centrifugal pumps.

Check Valve

Constructed of aluminum alloy and shall have a swing-type valve and a screw-type bleed off valve.

Gated Wyes

Available in 1” and 1 ½” sizes. Should be made of aluminum alloy.

HARODIKES (portable tanks for rough terrain and remote areas)

Available in 75, 150 and 300 gallon size. Made of canvas or rubber construction. Weights: 7 ½ lbs for 75 gallons, 9 ½ lbs for 150 gallons and 13 lbs for 300 gallon model.

A high-side U.S. Forest Service self-supporting tank is also available, with capacities from 500 to 5000 gallons. Weights from 35 lbs to 180 lbs made of heavy 30-oz vinyl.

HOSE

Many good types are available at reasonable prices. Beware of the temptation to use sandpipe hose – it is generally rated at only 200 psi, has very low abrasion resistance, and will not stand up to rough use or high pressure pumps. Be sure to specify thread type when you order!

Some common brands and types that have been field proven are as follows:

Staflo Spec 2100 (Neidner)

Synthetic weeping fire hose. Operating pressure 300 psi, burst pressure 800 psi. Weight: 12 ½ lbs. for 100 feet

Source-Line Spec 2300 (Neidner)

Synthetic non-weeping fire hose. Operating 450 psi, burst pressure 900 psi. Weight: 12 lbs for 100 feet.

Hotline Spec 2350 (Neidner)

Synthetic non-weeping fire hose, coated with ENCAP process to enhance fire resistance and durability. Operating pressure 450 psi, burst pressure 900 psi. Weight: 12 ½ lbs for 100 feet.

Econoflo 625 (Neidner)

Synthetic 5/8 or ¾ inch mop-up hose. Operating pressure 300 psi, burst pressure 600 psi. Weights: 1 lb 5/8”, 1 ½ lb ¾”, both for 50 foot lengths.

ReelTex (Neidner)

Hard single-jacketed booster hose. Weighs no more than regular double-jacketed hose. Available in ¾”, 1” and 1 1/2 “, from 50 to 100 foot lengths. A 100 foot length of 1” ReelTex weighs 21 lbs.

Dura-Lite HFX (Ponn, by Snap-Tite)

Hard rubber hose, resistant to 1200 degrees heat, very abrasion resistant. Operating pressure 600 psi, burst pressure 1200 psi, Available in 1” and 1 ½”. Weight: 29lbs for 100 feet of 1”.

Wild-Fire 500 (Mercedes)

Synthetic non-weeping fire hose. Operating pressure 500 psi, burst pressure 1100 psi. Weight: 9lbs for 100 feet 1, 14lbs for 100 feet of 1 1/2”.

Perolite (Mercedes)

Synthetic weeping fire hose. Operating pressure 300 psi, burst pressure 750 psi. Weight: 8lbs for 100 feet 1 ½”.

Forest-Flo (Mercedes)

Synthetic weeping fire hose. Operating pressure 450 psi, burst pressure 900 psi. Weight: 11.8 lbs for 100 feet of 1 ½”.

HOSE BAGS

Made of Cordura nylon or heavy canvas. Frameless types should carry up to 400 feet of 1 ½” hose; most framed types will carry up to 300 feet of 1 ½” hose. Most are available with pockets for nozzles or fittings.

NOZZLES

Hansen All-in-one (Also called Canadian nozzle)

Made of cast aluminum alloy. Streams from 1/8” to 5/16”. Available in 1” and 1 ½”.

LDM Forestry Nozzle

Made from machined aluminum bar stock. Streams from 1/8” to 5/16”. Available in 1” and 1 ½”.

Polycarbonate (Lexan) adjustable nozzle

Made of polycarbonate plastic with adjustable pattern from stream to fog. Available in 1” (20 gpm) and 1 ½” (83 gpm). Specify for forest use, or you may get high rise 125 gpm model. Also available in aluminum alloy.

Forestry fog and straight steam

Three position valve with 3 to 24 gpm spray nozzle (specify when ordering) and 1/8 to 3/8 orifice stream nozzle. This nozzle is U.S.F.S standard spec.

Polycarbonate straight stream nozzle with combination tips

Most economical nozzle. No shut off, changeable tips from ¼” to ½”.

DRIP TORCHES

Tank should have a capacity of 1 ¼ gallons. Spout should have built in fuel trap to prevent tank from igniting. Spout and igniter should be able to be stored inside the tank when torch is not in use.

BACK PACK PUMP (Also referred to as Indian cans)

Attached is a parts list from D.B. Smith & Company, as well as a parts list from Wildfire-Pacific, two of the many manufacturers of this type of pump. You will want to check your type to see if it is made by Chapin or some other manufacturer. Most parts do readily interchange. If you have a specific problem locating parts, have your local Forest Ranger check with the Equipment Team and we will try to find a solution.

CLASS A FOAM CONCENTRATE

Several types of Class A foam concentrate are available from the Division of Forests and Lands through your local Forest Ranger. Many more brands are available on the open market. Many types of foam are U.L. listed, but this just determines that the product works as designed. Before you order a specific brand on the open market, check to make sure it is certified by the U.S. Forest Service. The U.S.F.S. tests many factors, including toxicity, biodegradability, corrosion, and health. This is the only agency to do so. Attached is a current list of U.S.F.S. approved Class A foam concentrate.

PROTECTIVE CLOTHING

U.S. government contract Nomex shirts are available from the Division of Forests and Lands on an as-ordered basis. If you wish to purchase your own protective clothing, several manufacturers make Nomex, PBI, and Fire Resistive Cotton Duck garments. Shirts, pants, and brush coats are available, usually with a discount for quality. Companies include Wildfire-Pacific, Cascade, Globe, P.G.I., and Quaker Safety Products.

HANDLES FOR HAND TOOLS

The Division carries spare handles for the Pulaski. All other hand tool handles are available from most forestry suppliers. Owl Brook Distributors, Ashland NH, are primarily wholesale distributors for hardwood handles, but may be able to advise where to find other handle manufacturer's or at many farm stores throughout the state.